

Access to What? An Evaluation of the Key Ingredients to Effective Advanced Mental Health Access at a VA Medical Center and Its Affiliated Community-Based Outreach Clinics

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ABSTRACT Initial evaluation of an advanced access clinic developed at a VA medical center (VAMC) found decreased Mental Health wait times and improved quality of care for veterans with depression. Subsequently, modified advanced access models were implemented at affiliated community-based outreach clinics (CBOCs). By comparing each site, we sought to determine whether less resource-intensive models could improve care to the same degree. We assessed contributions of the model's components to the improvement of care (i.e., wait times and depression treatment adequacy). The modified advanced access models led to significant improvements, although no such improvements were seen at 2 control sites. Six features related to rapid access, short-term treatment, and barrier-free access to mental health services accounted for most of the observed improvements. CBOCs can implement limited advanced mental health access models and derive similar improvements to those seen in more extensive models at the VAMCs to which they are affiliated.

INTRODUCTION

Depression is a common reason given by patients for ambulatory office visits, with 33% of visits for depression occurring in primary care offices.¹ A recent longitudinal study found that 5–7% of patients at a VA medical center (VAMC) primary care clinic had a diagnosis of depression on their problem list,² although the prevalence of depression in primary care samples has been found to be as high as 14–18%.^{3,4} While the condition is common in primary care settings, the diagnosis and treatment of depression is often suboptimal. Primary care physicians have reported barriers to systematic approaches to identification and treatment of depression as well as reliance upon medication as the primary treatment modality.⁵ However, monitoring of these medication trials has been poor, with few patients receiving Food and Drug Administration-recommended levels of follow-

up care.⁶ Several studies have addressed the redesign of primary care clinics in an effort to optimize treatment for patients with depression and have found that integrating mental health services into a primary care clinic can improve access and outcomes for patients with depression,^{7–10} as well as the quality of treatment for depression.¹¹ Adding care management for depressed patients treated in primary care has improved outcomes when used either alone or with other interventions.^{12–14}

There is little evidence that these practices are being adopted into general clinical practice, in part because there has been limited evaluation of the implementation of recommended changes into clinical settings.¹⁵ In 2004, the White River Junction (WRJ) VAMC instituted an advanced mental health access clinic called Primary Mental Health Care (PMHC) to decrease wait times.^{16,17} Our initial study of depression treatment before and after the implementation of the WRJ PMHC found decreased wait times and improved quality of care for veterans identified with new cases of depression by screening; the percentage of patients seen in Mental Health within 4 days and within 30 days (2.1–35.5%; $p < 0.001$ and 6.5–42.1%; $p < 0.001$, respectively), and the percentage of patients receiving any care and optimal care for depression (37.8–52.3%; $p < 0.001$ and 1.1–11.2%; $p < 0.001$, respectively) improved.¹⁸ At the same time, no change was seen at our affiliated community-based outreach clinics (CBOC), where systematic changes had not yet been adopted. The spread of the PMHC model both nationally and to our affiliated CBOCs since this study provides the opportunity to compare various iterations of the PMHC model to determine which are most effective in promoting high quality care. That some sites still have not adopted any version of the PMHC model allows selection of new control sites to replace those that have instituted changes. This work seeks to evaluate the effect of advanced mental health access on treatment of patients who screen positive for depression using

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a mandatory 2-question depression screen performed yearly on all veterans receiving care in the VHA.³ Under the sponsorship of VA Mental Health Quality Enhancement Research Initiative (QUERI), Parker and colleagues created a fidelity tool to assist clinics with implementing PMHC (unpublished scale, used with permission). In this study, we modified this tool and utilized some of its items to assess contributions of the model's components to improving care (the PMHC Component Scale, see Appendix A). We conducted our assessments utilizing the component scale before and after locally adapted PMHC implementation. By doing this, we will begin to define the essential elements of the PMHC model, which could help CBOCs looking to develop limited-resource advanced access models make the best decisions about which resources to focus on.

METHODS

Setting and Interventions

White River Junction (WRJ) VAMC

The original PMHC model was implemented at WRJ in July 2004 (PMHC A).¹⁶ The original model included: (1) collocation with primary care, (2) walk-in access whenever the primary care clinic is open, (3) evaluation by a psychotherapeutically oriented provider, and (4) evaluation by a psychopharmacologically oriented provider. Standardized symptomatic assessment on computer tablets in the waiting room with the Beck Depression Inventory (BDI),¹⁹ the Spielberger State-Trait Anxiety Index for Adults (STAI),²⁰ the Patient Checklist-Military Version (PCL-M),²¹ and the Medical Outcomes Study Short Form-36 (SF-36)²² was instituted 4 months after the introduction of the original PMHC. Following the completion of the initial outcomes study of this clinic, nurse care management was instituted in August 2007.

Colchester (CCT) CBOC

A modified model of the PMHC was instituted at CCT in January 2007 (PMHC B). The modified model included: (1) walk-in access 1 day per week, (2) evaluation by a psychotherapeutically oriented provider, (3) evaluation by a psychopharmacologically oriented provider, and (4) standardized symptomatic assessment. Initially the CCT PMHC ran only on Wednesdays, but this was expanded to Thursdays in October 2007. Key differences included physical separation from the primary care clinic (psychotherapeutically oriented providers were on the same floor, but psychopharmacologically oriented providers were located one floor above), standardized assessment as part of the visit time rather than before the visit, and fewer days of PMHC coverage.

Bennington (BTN) CBOC

Telepsychiatry services were instituted at BTN in February 2005 (TELE). The model at BTN included: (1) a psychotherapist as part of the primary care team and (2) back-up telepsychiatry services from the psychiatric doctor on call at WRJ. Telepsychiatry appointments at BTN were scheduled rather than open access.

Rutland (RTL) CBOC

RTL had primary care only and no psychiatry services and is therefore treated as treatment as usual (TAU) in this study. There was a 1-year period from 2005 to 2006 when a psychotherapist had a clinic at this site. A part-time VA psychiatrist began his practice at RTL 1 day per week November 2007 at an armory a few miles from the CBOC. A VA psychologist began seeing patients 2 days per week in the armory at the same time.

Littleton (LTN) CBOC

LTN offers primary care services only and is therefore treated TAU in this study. Patients from LTN with mental health needs could be seen by a master's-level VA psychologist in the community mental health center in St. Johnsbury, VT, which is located 20 miles from the CBOC.

Site Visits and PMHC Component Measure

We modified the QUERI-sponsored PMHC fidelity measure (Parker, et al.) to develop a survey for determining which components the clinics adopted and how such adoption affected the quality of care. The QUERI group designed their instrument as a tool to help clinics implement PMHC. As such, they did not develop a scoring mechanism; rather they intended the tool to foster informed discussion about the status of implementation during the lifetime of the program. To facilitate statistical analyses, we scored items on our measure using 0/1 dichotomous scales. We dropped 3 items that Parker and colleagues included because the CBOCs could not implement these components. These concerned: (1) letting patients know that they may not see the same provider every time (one site had only one psychiatrist), (2) having psychiatrists provide back-up for nurse practitioners (not all sites used mental health nurse practitioners), and (3) having the week-end on-call physician take the Friday afternoon shift (on-call services were centralized through WRJ and not all sites had Friday PMHC clinics). Clinic coordinators were asked to retrospectively complete the measure for the 2 months following the implementation of their advanced access model and for the corresponding 2 months in the preceding year. One of the authors (A.G.) visited each site to review the component measure with the clinic coordinators and to confirm responses that were observable at the time of the study.

Measures

Patients who screened positive on the yearly primary care depression screen at CCT and BTN in the 2 months following the implementation of advanced access models and the corresponding 2 months in the prior year were identified. Those patients who were not already receiving antidepressants or in psychotherapy were considered "identified cases" and were included in this analysis. Corresponding patients in RTL and LTN during the first and last periods examined served as controls. Repeating the analysis originally performed in WRJ, we

determined whether patients received any care for depression in the 6 months following their positive screen, how long they waited for this care, and whether the care was optimal.¹⁸ To facilitate comparison with our previous analysis, optimal care was defined in the same way: care that began within 72 hours of a positive screen, included an adequate dose of an antidepressant or 10 sessions of psychotherapy,^{23,24} continued for at least 90 days,²⁵ and included at least 3 primary care or mental health contacts within the first 60 days.^{25,26}

Analysis

χ^2 analysis was used to compare adherence to important care processes before and after implementation of advanced access models. We calculated correlation coefficients between each independent variable (structural processes described by the component measure) and dependent variable (clinical process evaluated with records review). Subsequently, a principal component analysis was performed to determine which independent variables best accounted for the 3 most clinically important dependent variables following a positive depression screen, namely receiving any depression care, receiving "optimal" depression care, and receiving timely evaluation in Mental Health.²⁷ Statistical analyses were performed with SAS (version 8, SAS Institute, Cary, NC).

RESULTS

Demographic Data

As seen in Table I, there was a decline in the number of identified cases from the before-to-after period at all CBOC sites despite an increase in volume. Depression screening rates are not available at the CBOC level in VA administrative databases, so we were unable to identify whether a decline in screening had occurred.²⁸ Generally, patients were older, white, and male.

Treatment Characteristics

Table II characterizes care received by veterans screening positive for depression before and after changes were implemented at their respective sites. The limited PMHC model implemented in CCT resulted in an improvement in the percentage of patients seen in Mental Health within 4 days (4.4–27.3%; $p < 0.05$), the percentage of patients seen in Mental Health within 30 days (8.8–36.4%; $p < 0.05$), and the percentage of patients receiving optimal care (3.3–27.3%; $p < 0.01$). The telepsychiatry model implemented in BTN resulted in an improvement in the percentage of patients seen in Mental Health within 30 days (6.7–36.8%; $p < 0.05$) and the percentage of patients receiving optimal care (0–15.8%; $p < 0.05$). There were no significant changes in the pooled data for RTL and LTN.

Principal Component Analysis

Items on the component scale were nonorthogonal; responses for Q1, Q16, Q21, and Q23 were identical, responses for Q2, Q11, Q13, Q14, Q15, Q19, and Q21 were identical, responses

TABLE I. Demographic Characteristics of the Study Population

Site	WRJ ¹⁸			CCT		BTN		RTL-LTN	
	Before	After		Before	After	Before	After	Before	After
Period	Aug-Sept 2003	Aug-Sept 2004		Feb-Mar 2006	Feb-Mar 2007	Mar-Apr 2004	Mar-Apr 2005	Mar-Apr 2004	Feb-Mar 2007
Dates	4197	4577		1284	1428	656	653	1178	1094
Unique Patients (PC + MH)	TAU	PMHC A		TAU	PMHC B	TAU	TELE	TAU	TAU
Intervention	186	197		91	11	30	19	35	17
Cases Identified	68.1 (11.1)	69.2 (6.8)*		57.4 (16.6)	53.4 (17.7)	64.5 (12.4)	62.4 (17.9)	59.3 (14.1)	58.0 (13.8)
Mean (SD) age	86 (160)	88 (173)		98 (89)	82 (9)	100 (30)	100 (19)	100 (35)	100 (17)
Male, % (n)	98 (182)	98 (193)		93 (85)	100 (9)	93 (28)	95 (18)	100 (35)	100 (17)
White, % (n)									

TAU, treatment as usual; PMHC A, original PMHC; always open when primary care is open, PMHC B, abbreviated PMHC; open 1 day per week, TELE, telepsychiatry, * $p < 0.05$ in χ^2 comparison of White River Junction before and after.

TABLE II. Comparison of Treatment for Depression at Each Site Before and After Institution of Advanced Psychiatric Access Models

Site	WRJ		CCT		BTN		RTL-LTN	
	Before	After	Before	After	Before	After	Before	After
Period	Aug-Sept 2003	Aug-Sept 2004	Feb-Mar 2006	Feb-Mar 2007	Mar-Apr 2004	Mar-Apr 2005	Mar-Apr 2004	Feb-Mar 2007
Dates	4,197	4,577	1,284	1,428	656	653	1,178	1,094
Unique Patients (PC + MH)	TAU	PMHC A	TAU	PMHC B	TAU	TELE	TAU	TAU
Intervention	186	197	91	11	30	19	35	17
Cases Identified	37.8 (70)	52.3 (103)*	17.6 (16)	36.4 (4)	10.0 (3)	36.8 (7)	8.6 (3)	29.4 (5)
Any Treatment	1.1 (2)	11.2 (22)*	3.3 (3)	27.3 (3)***	0.0 (0)	15.8 (3)****	0.0 (0)	11.8 (2)
Optimal Treatment	9.0 (16)	36.0 (71)*	11.0 (10)	36.4 (4)	6.7 (2)	36.8 (7)****	2.9 (1)	11.8 (2)
MH								
	Time to Appointment for Those Seen in Mental Health							
<4 days	2.1 (4)	35.5 (70)*	4.4 (4)	27.3 (3)**	3.3 (1)	0.0 (0)	0.0 (0)	0.0 (0)
<30 days	6.5 (12)	42.1 (83)*	8.8 (8)	36.4 (4)**	3.3 (1)	31.6 (6)****	2.9 (1)	0.0 (0)
>90 days	6.5 (12)	1.5 (3)*	1.1 (1)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

TAU, treatment as usual; PMHC A, original PMHC, always open when primary care is open; PMHC B, abbreviated PMHC, open 1 day per week; TELE, telepsychiatry. * $p < 0.001$ in χ^2 comparison of White River Junction before and after; ** $p < 0.05$ in χ^2 comparison of Colchester CBOC before and after; *** $p < 0.01$ in χ^2 comparison of Colchester CBOC before and after; **** $p < 0.05$ in χ^2 comparison of Bennington CBOC before and after.

TABLE III. Correlation Coefficients Between PMHC Component Scale (Q1-Q25) and Dependent Variables

Independent Variables	Dependent Variables		
	Any	Optimal	<4 days
Total	0.6494	0.3911	0.8398
Q1	0.5134	0.6367	0.4880
Q2	0.4027	0.4463	0.9617
Q3	0.0000	0.0000	0.0000
Q4	0.3914	0.0099	0.5788
Q5	0.3914	0.0099	0.5788
Q6	0.4359	0.0294	0.1838
Q7	0.5341	0.1416	0.5488
Q8	0.1497	0.0349	0.1594
Q9	0.1497	0.0349	0.1594
Q10	0.0604	0.1156	0.0023
Q11	0.4027	0.4463	0.9617
Q12	0.4151	0.0901	0.1455
Q13	0.4027	0.4463	0.9617
Q14	0.4027	0.4463	0.9617
Q15	0.4027	0.4463	0.9617
Q16	0.5134	0.6367	0.4880
Q17	0.4027	0.4463	0.9617
Q18	0.5134	0.6367	0.4880
Q19	0.4027	0.4463	0.9617
Q20	0.4027	0.4463	0.9617
Q21	0.5134	0.6367	0.4880
Q22	0.2657	0.0448	0.3945
Q23	0.5134	0.6367	0.4880
Q24	0.0030	0.2971	0.0298
Q25	0.7255	0.3118	0.2964

Any (percentage of patients receiving any depression care); optimal (percentage of patients receiving "optimal" depression care), and <4 days (percentage of patients seen by Mental Health in <4 days), following a positive depression screen.

for Q4 and Q5 were identical, and responses for Q8 and Q9 were identical. No clinic had an affirmative response on Q3 (the average wait time is <20 minutes and the modal wait time is zero minutes) in either the before or after period. Correlation coefficients between independent variables (Q1-Q25 on the component scale) and important clinical processes determined by chart review are displayed in Table III. Values ranged from 0.00 to 0.96. Because of their nonorthogonal nature, many component scale items predicted dependent variables in an identical manner.

Principal component analysis revealed that 6 out of the 25 items on the component scale were most important in predicting the 3 dependent variables (Tables IV-VI). For "any," 2 items accounted for 83.3% of the variability, for "optimal," 3 items accounted for 88.5% of the variability, and for "<4 days," one item accounted for 96% of the variability. Adding additional independent variables improved the model's ability to predict the independent variables by <5%.

DISCUSSION

Summary

Limited advanced access models improved access and care for patients with new cases of depression to a similar degree as

TABLE IV. Most Important Components in Predicting Whether Patients Received Any Treatment for Depression in the 6 Months Following a Positive Screen

Item	Abbreviated Description	Cumulative R^2	Trend
Q25	Patients with any mental health diagnosis of any severity level are seen in the clinic and transferred only to the regular mental health service if advanced mental health access does not work.	0.7255	Improvement
Q4	Patients are informed of waiting time and given option of coming back if it is >1 hour.	0.8331	
Q8	A psychologist or psychiatric social worker is on duty whenever the clinic is open.	0.8495	<5% Additional Benefit
Q10	Advanced mental health access staff members also work on the regular mental health service.	0.8671	
Q1	Mental health and primary care provider's offices are in the same building and on the same hallway.	0.8675	
Q12	Short-term therapies are utilized.	0.8676	

TABLE V. Most Important Components in Predicting Whether Patients Received Optimal Treatment for Depression

Item	Abbreviated Description	Cumulative R^2	Trend
Q23	Patients spend approximately 20 minutes with the psychiatrist or advanced practice nurse.	0.6367	Improvement
Q12	Short-term psychotherapies are utilized.	0.8321	
Q24	On average, the total visit, including standardized assessments, does not exceed 1 hour.	0.8847	
Q22	Patients spend approximately 20 minutes with the psychologist or psychiatric social worker.	0.8892	<5% Additional Benefit
Q6	Mental health backup staff is available in the event that an unusually high number of patients arrive.	0.8934	
Q8	A psychologist or psychiatric social worker is on duty whenever the clinic is open.	0.8934	

TABLE VI. Most Important Components in Predicting Whether the Patient Is Seen by Mental Health in <4 days Following a Positive Screen

Item	Abbreviated Description	Cumulative R^2	Trend
Q2	Mental health is open access.	0.9617	Improvement
Q24	On average, the total visit, including standardized assessments, does not exceed 1 hour.	0.9915	<5% Additional Benefit
Q4	Patients are informed of waiting time and given option of coming back if it is >1 hour.	0.9982	
Q6	Mental health back-up staff is available in the event that an unusually high number of patients arrive.	0.9996	
Q22	Patients spend approximately 20 minutes with the psychologist or psychiatric social worker.	1.0000	
Q10	Advanced mental health access staff members also work on the regular mental health service.	1.0000	

the full model from which they were derived, while improvements were not seen where no systematic changes were made. Specific characteristics of each model may affect specific outcomes differently. CBOCs can implement modified advanced mental health access models and derive similar improvements in mental health care to those seen in more extensive models in the VAMCs to which they are affiliated. It appears that in the case of advanced mental health access, having some system is better than having none at all.

The findings of the principal component analysis are unique. We show that short-term, easily accessible care not only improves access, but quality of care. While we do not wish to downplay the potential utility of other factors identified as contributors in the analysis, we recommend that clinics consider implementing those 6 that we have identified as most important if faced with limited funds and a desire to improve access to and quality of care for depression. Specifically, clinics wishing to increase their treatment rate should ensure that all patients identified with new cases of depression have access to the clinic regardless of severity and that these patients are given clear expectations about waiting time and given the option to come back if it is >1 hour. Clinics wishing to deliver optimal care for depression, as defined above, should provide a short visit with a psychiatrist, utilize short-term psycho-

therapies, and keep total visit time to 1 hour or less. Clinics wishing to deliver timely care for depression should design an open-access model with no fixed appointments.

Limitations

A potential weakness was that we relied on a chart review to obtain our clinical data. Difficulties extracting administrative data from the VA electronic medical record system limited our ability to obtain data in a more reliable, automated manner. While we were able to replicate our previous chart review methods almost fully in this follow-up study, we could not recreate the exact method for determining time to mental health appointment. Because our WRJ data sheets had been destroyed for the purposes of protecting identifiable health information following publication, we were unable to determine why there seemed to be more patients in the "<30 days" cell than in the "seen in Mental Health" cell in Table II. However, we feel this problem is minor as the methods used at each site were consistent.

Another potential weakness is that we examined the relationship between proximal and distal processes rather than process and outcome. Although baseline BDI scores (and more recently Patient Health Questionnaire-9 [PHQ-9]²⁹ scores) are collected in the advanced access models and com-

pleted upon follow-up, they are inconsistently collected and were not available for patients in the preintervention period. Future studies should standardize outcomes collection, even for patients who do not follow up. One potential solution would be to reassess the BDI or PHQ-9 at 4–6 weeks and at 10–12 weeks either when the patient presents for in-person follow-up or on the phone during care management calls as is done in VHA depression management programs.¹⁰ This would enable clinicians to determine whether patients are improving at a rate predictive of ultimate remission of depressive symptoms and whether remission is achieved in a timely manner.³⁰ Patients not improving at adequate rates or not achieving remission could be targeted for further intervention.

The third major weakness was that the number of identified cases of depression in the CBOCs declined dramatically from the pre- to the postperiod in each case. This raises the question of whether we have obtained truly representative samples at CBOCs because the population incidence of depression at these sites is unknown. This is difficult to account for because administrative data about depression screening and screening rates are not available at the CBOC level. In fact, we performed our case finding by identifying all positive screens assigned to the parent facility (White River Junction) in the time periods of interest and performing chart review to find cases at the affiliated CBOCs of interest. It is possible, however, that we identified fewer new cases at the CBOCs during the postperiod due to chance, because our windows of examination were relatively short at 2 months.

Finally, there were 2 major limitations to the component scale. The first limitation is that the scale was completed by clinic coordinators, who may not have been able to objectively assess their own clinics. While site visits sought to increase the accuracy of the postperiod component assessment, we relied on clinic coordinators to complete the preperiod component assessment retrospectively. This may have led to over- or underestimation of the degree of systematic change at each site. To better study the effect of process improvement, future studies should attempt to perform a formal characterization of

clinical processes before implementation of changes to establish a more accurate baseline. We were reassured, however, by the close correlation of clinic coordinator self-report and site visitor observation for the postperiod fidelity assessment. The second limitation is that the component measure used categorical questions, and this may have led to difficulties discerning more subtle differences between clinics. Future scale items should have ordinal responses (such as Likert scales) to determine not only the presence or absence of clinical characteristics, but also the degree of their presence. Additionally, future scales should build on the 6 empirically determined items identified in this study as well as items identified by other researchers shown to promote better outcomes in other integrated mental health care programs.³¹

Conclusions

All of the thoughtfully created advanced mental health access models that we examined improved access to care and quality of care for patients screening positive for depression in primary care. While the original WRJ PMHC model did not consume additional resources (providers and staff were simply reassigned from other duties), smaller clinical services such as CBOCs may not have the existing resources to completely copy the WRJ PMHC model. However, it appears that limited models may work just as well when designed with specific settings in mind. For those CBOC clinics wishing to improve access to and quality of depression care, we have identified 6 characteristics that are most important in designing a resource-limited advanced mental health access model. The question remaining is how unique these characteristics are to this model versus simply being characteristic of good patient care. Future studies should more closely examine other models of care to better differentiate unique characteristics of this model from generally good patient care.

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APPENDIX A. Primary Mental Health Care Component Scale

(1) PMHC is immediate in both time and space:	
Q1	(a) Patients are most likely to obtain mental health (MH) services if they remain in primary care (PC). Having to walk even only a short distance to a MH specialty clinic substantially reduces the likelihood that a patient will obtain services. Your PMHC and PC providers' offices are in the same building(s) and on the same hallway(s). The 2 are indistinguishable and mixed-in together.
Q2	(b) Open access (i.e., there are no fixed appointments) is convenient for patients and reduces no-show rates. Your PMHC clinic is open access.
	(c) For open access to work effectively, it is essential that you minimize wait times as much as possible.
Q3	— The average wait-time for PMHC should be under 20 minutes and model wait should be zero.
Q4	— Staff members know that upon arrival, a PMHC staff member should inform patients of the approximate waiting time to see a clinician. If patients will have to wait for more than 1 hour, a staff member should inform them immediately and give them the option to wait or come back if they live close to the clinic (i.e., within walking distance or a short drive away).

- Q5 (d) To determine appropriate staffing levels, the clinic should measure and review quarterly:
- Patient arrival rates for each hour block that the clinic is open to determine the staffing levels required throughout the day. We suggest using a spreadsheet (e.g., such as Excel or simple pen and paper).
 - How long it takes to attend to patients. The clinic should also “keep an ear to the ground” and adjust staffing rates as required prior to quarterly reviews.
- Q6 (e) It is generally advisable to have back-up staff available in the event that an unusually high number of patients arrive.
- (2) PMHC essential staff members: The following types of professionals must be on duty whenever the clinic is open:
- Q7 (a) Either a psychiatrist or a MH advanced practice nurse (APN) with prescriptive authority.
- Q8 (b) A therapist (PhD- or MA-level psychologist or psychiatric social worker).
- Q9 (c) A PMHC needs a clerk to check patients in and assist with tool administration (see item 4 on the next page). Your clinic can decide if it wants to use existing PC clerks or hire a dedicated PMHC clerk.
- Q10 (3) It is helpful if PMHC providers work part time in their facility’s MH service. PMHC providers can then:
- Remain expert in the MH knowledge base.
 - Place patients transferred to the MH specialty care clinic on the schedules of providers who work in both the PMHC and MH clinics and thus ensure continuity.
- Note: It is not a requirement, however, that only providers who serve in the PMHC clinic see transferred PMHC patients. Patient preferences and provider skills and availability should determine provider assignment.
- (4) Staff selection and training:
- Q11 (a) PMHC and the traditional MH mindsets differ. It is important to select staff who are comfortable with the PMHC mindset:
- Traditional MH mindset is symptom focused: Assumes problems patients present are a symptom of an underlying problem.
 - PMHC is problem focused: Addresses the problem at hand and does not assume a deeper underlying problem. (Although PMHC providers do sufficient inquiry to determine if there is an underlying problem, they assume patients generally present problems with reasonable accuracy.)
- Q12 (b) PMHC therapists utilize short-term therapies (e.g., cognitive behavior and problem solving). Experience has demonstrated that:
- Most patients who present within the PC setting improve within 1 to 3 sessions rather than the 12-week or longer course typical within MH settings.
 - PMHC therapy sessions need not be weekly as is customary within MH settings. Rather, PMHC clinicians should base session frequency on patient needs and preferences.
- Q13 (5) Flow of visit:
- Either provider or patient self-referral is acceptable.
 - Clerk checks patient in and if using touch pad for assessment tools (see 4 and 5 below), provides touch pad. Patient almost always sees the therapist first, then the psychiatrist or APN. You may alter this order, if circumstances warrant.
- (6) Assessment instruments:
- Q14 (a) Depression: Suggest one of the following: Beck Depression Inventory (BDI) or Patient Health Questionnaire (PHQ-9).
- Q15 (b) Anxiety: Suggest one of the following: Spielberger State-Trait Anxiety Inventory for Adults (STAI), Beck Anxiety Inventory (BAI), Generalized Anxiety Disorder-7 (GAD-7).
- Q16 (c) PTSD Checklist-Military: No viable alternatives currently available.
- Q17 (d) MOS Short Form Health Survey (either 12 [SF-12] or 36 [SF-36] item versions): No viable alternatives currently available.
- Q18 (e) Substance abuse: Audit-C is the standard assessment tool for substance abuse within VHA.

- (7) Tool administration:
- Q19 (a) Should not exceed 20 minutes; 15 is ideal.
- Q20 (b) Touch pad consumer self-administration of tools is advantageous:
- Fosters consumer involvement.
 - Less labor intensive than manual administration.
 - Can summarize data immediately into one, easily interpretable visual form.
 - Can aggregate data to monitor clinic outcomes and process. Paper-and-pencil administration is acceptable if either your patients or staff members are not comfortable with touch pads. If you use paper-and-pencil administration, then a clinician or clerical staff member will need to transcribe instrument results and enter them into the chart.
- Q21 (8) Mental status exam and psychosocial interview: In addition to using assessment tools, therapist and psychiatrist/APN also conduct clinical interviews with patients.
- (9) Length of interaction with PMHC providers
- Q22 (a) Therapist: approximately 20 minutes.
- Q23 (b) Psychiatrist/APN: approximately 20 minutes.
- Q24 (10) Total visit should not exceed 1 hour, including tool administration and interaction with providers.
- Q25 (11) Which patients are appropriate for PMHC?
- (a) Those with any MH diagnosis.
 - (b) Those with any severity level,
 - (c) PMHC is especially appropriate for patients in need of mental health services who:
 - Are new to mental health.
 - Need help now, for whatever reason.
 - Are in ongoing psychotherapy and require medication back up.
 - Have focal problems (e.g., panic attacks, PTSD, episodic depression, and problem drinking).
 - Are ambivalent about seeking MH care.
 - Prefer to obtain their MH care where they receive their PC.
 - Are particularly concerned with access to rather than continuity of care.
 - Do not want to commit to a course of long-term psychotherapy.
 - Have difficulty keeping appointments. We suggest that your PMHC providers see all patients with MH disorders for triage and only refer those for whom this form of treatment does not work. Patients' needs and preferences rather than rigid rules should determine treatment venue (PC or MH service).

REFERENCES

1. Schappert SM, Burt CW: Ambulatory care visits to physician offices, hospital outpatient departments, and emergency departments: United States, 2001–02. *Vital Health Stat* 13 2006; 159: 1–66.
2. Kirchner JE, Curran GM, Aikens J: Datapoints: detecting depression in VA primary care clinics. *Psychiatr Serv* 2004; 55(4): 350.
3. Whooley MA, Avins AL, Miranda J, Browner WS: Case-finding instruments for depression. Two questions are as good as many. *J Gen Intern Med* 1997; 12(7): 439–45.
4. Whooley MA, Stone B, Soghikian K: Randomized trial of case-finding for depression in elderly primary care patients. *J Gen Intern Med* 2000; 15(5): 293–300.
5. Solberg LI, Korsen N, Oxman TE, Fischer LR, Bartels S: The need for a system in the care of depression. *J Fam Pract* 1999; 48(12): 973–9.
6. Stettin GD, Yao J, Verbrugge RR, Aubert RE: Frequency of follow-up care for adult and pediatric patients during initiation of antidepressant therapy. *Am J Manag Care* 2006; 12(8): 453–61.
7. Bartels SJ, Coakley EH, Zubritsky C, et al: Improving access to geriatric mental health services: a randomized trial comparing treatment engagement with integrated versus enhanced referral care for depression, anxiety, and at-risk alcohol use. *Am J Psychiatry* 2004; 161(8): 1455–62.
8. Pincus HAPC, Keyser D, Bachman J, Houtsinger JK: Depression in primary care: learning lessons in a national quality improvement program. *Adm Policy Ment Health* 2006; 33(1): 2–15.
9. Felker BL, Chaney E, Rubenstein LV, et al: Developing effective collaboration between primary care and mental health providers. *Prim Care Companion J Clin Psychiatry* 2006; 8(1): 12–6.
10. Oslin DW, Ross J, Sayers S, Murphy J, Kane V, Katz IR: Screening, assessment, and management of depression in VA primary care clinics. The Behavioral Health Laboratory. *J Gen Intern Med* 2006; 21(1): 46–50.
11. Solberg LI, Crain AL, Sperl-Hillen JM, Hrosikoski MC, Engebretson KI, O'Connor PJ: Effect of improved primary care access on quality of depression care. *Ann Fam Med* 2006; 4(1): 69–74.
12. Bruce ML, Ten Have TR, Reynolds CF 3rd, et al: Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: a randomized controlled trial. *JAMA* 2004; 291(9): 1081–91.
13. Oxman TE, Dietrich AJ, Schulberg HC: Evidence-based models of integrated management of depression in primary care. *Psychiatr Clin North Am* 2005; 28(4): 1061–77.
14. Frederick JT, Steinman LE, Prohaska T, et al: Community-based treatment of late life depression: an expert panel-informed literature review. *Am J Prev Med* 2007; 33(3): 222–49.

15. Hogan MF: The President's New Freedom Commission: recommendations to transform mental health care in America. *Psychiatr Serv* 2003; 54(11): 1467-74.
16. 2005 APA Gold Award: Improving treatment engagement and integrated care of veterans. *Psychiatr Serv* 2005; 56(10): 1306-8.
17. Pomerantz A, Cole BH, Watts BV, Weeks WB: Improving efficiency and access to mental health care: combining integrated care and advanced access. *Gen Hosp Psychiatry* 2008; 30(6): 546-51.
18. Watts BV, Shiner B, Pomerantz A, Stender P, Weeks WB: Outcomes of a quality improvement project integrating mental health into primary care. *Qual Saf Health Care* 2007; 16(5): 378-81.
19. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J: An inventory for measuring depression. *Arch Gen Psychiatry* 1961; 4: 561-71.
20. Spielberger CD: Manual for the State-Trait Anxiety Inventory. Palo Alto, CA, Consulting Psychologists Press, 1983.
21. Weathers F, Huska J, Keane T: The PTSD checklist-military version (PCL-M). Boston, MA, National Center for PTSD, 1991.
22. Stewart AL, Hays RD, Ware JEt: The MOS short-form general health survey. Reliability and validity in a patient population. *Med Care* 1988; 26(7): 724-35.
23. Oquendo MA, Baca-Garcia E, Kartachov A, et al: A computer algorithm for calculating the adequacy of antidepressant treatment in unipolar and bipolar depression. *J Clin Psychiatry* 2003; 64(7): 825-33.
24. Schulberg HC, Block MR, Madonia MJ, et al: Treating major depression in primary care practice. Eight-month clinical outcomes. *Arch Gen Psychiatry* 1996; 53(10): 913-9.
25. NCQA: HEDIS 2004 Technical Specifications. Washington, DC, National Committee for Quality Assurance, 2003.
26. Schulberg HC, Katon W, Simon GI, Rush AJ: Treating major depression in primary care practice: an update of the Agency for Health Care Policy and Research Practice Guidelines. *Arch Gen Psychiatry* 1998; 55(12): 1121-7.
27. Hatcher L: A step-by-step approach to using SAS for factor analysis and structural equation modeling. Cary, NC, SAS Press, 2006.
28. Executive Briefing Book Measure Master VA: Available at <http://vaww.pdw.med.va.gov/Index.asp>; accessed February 26, 2009.
29. Spitzer RL, Kroenke K, Williams JB: Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *JAMA* 1999; 282(18): 1737-44.
30. Sackeim HA, Roose SP, Lavori PW: Determining the duration of antidepressant treatment: application of signal detection methodology and the need for duration adaptive designs (DAD). *Biol Psychiatry* 2006; 59(6): 483-92.
31. Oxman TE, Schulberg HC, Greenberg RL, et al: A fidelity measure for integrated management of depression in primary care. *Med Care* 2006; 44(11): 1030-7.